RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _____10/501,566B_____

Source: _____JFWP_____

Date Processed by STIC: _____06/29/2006_____

ENTERED

IFWP

```
 3 <110> APPLICANT: UNO, Yumiko
 4       HIKICHI, Yukiko
 5       SAGIYA, Yoji
 6       NAKANISHI, Atsushi
 8 <120> TITLE OF INVENTION: Novel Protein and its DNA
10 <130> FILE REFERENCE: 3015USOP
12 <140> CURRENT APPLICATION NUMBER: US 10/501,566B
13 <141> CURRENT FILING DATE: 2004-07-15
15 <150> PRIOR APPLICATION NUMBER: PCT/JP03/00311
16 <151> PRIOR FILING DATE: 2003-01-16
18 <150> PRIOR APPLICATION NUMBER: JP 2002-10840
19 <151> PRIOR FILING DATE: 2002-01-18
21 <150> PRIOR APPLICATION NUMBER: JP 2002-15995
22 <151> PRIOR FILING DATE: 2002-01-24
24 <150> PRIOR APPLICATION NUMBER: JP 2002-25662
25 <151> PRIOR FILING DATE: 2002-02-01
27 <150> PRIOR APPLICATION NUMBER: JP 2002-25706
28 <151> PRIOR FILING DATE: 2002-02-01
30 <150> PRIOR APPLICATION NUMBER: JP 2002-30015
31 <151> PRIOR FILING DATE: 2002-02-06
33 <150> PRIOR APPLICATION NUMBER: JP 2002-33111
34 <151> PRIOR FILING DATE: 2002-02-08
36 <150> PRIOR APPLICATION NUMBER: JP 2002-45058
37 <151> PRIOR FILING DATE: 2002-02-21
39 <150> PRIOR APPLICATION NUMBER: JP 2002-46951
40 <151> PRIOR FILING DATE: 2002-02-22
42 <160> NUMBER OF SEQ ID NOS: 172
44 <210> SEQ ID NO: 1
45 <211> LENGTH: 377
46 <212> TYPE: PRT
47 <213> ORGANISM: Human
49 <400> SEQUENCE: 1
50 Met Arg Ala Asn Cys Ser Ser Ser Ser Ala Cys Pro Ala Asn Ser Ser
51                   5                  10                  15
52 Glu Glu Glu Leu Pro Val Gly Leu Glu Val His Gly Asn Leu Glu Leu
53              20                  25                  30
54 Val Phe Thr Val Val Ser Thr Val Met Met Gly Leu Leu Met Phe Ser
55          35                  40                  45
56 Leu Gly Cys Ser Val Glu Ile Arg Lys Leu Trp Ser His Ile Arg Arg
57      50                  55                  60
58 Pro Trp Gly Ile Ala Val Gly Leu Leu Cys Gln Phe Gly Leu Met Pro
59 65                  70                  75                  80
60 Phe Thr Ala Tyr Leu Leu Ala Ile Ser Phe Ser Leu Lys Pro Val Gln
```

$(Pg-6)$

```
RAW SEQUENCE LISTING              DATE: 06/29/2006
PATENT APPLICATION:  US/10/501,566B    TIME: 15:03:40

Input Set : A:\3015US0P.SEQ.txt
Output Set: N:\CRF4\06292006\J501566B.raw
```

```
61                 85               90               95
62 Ala Ile Ala Val Leu Ile Met Gly Cys Cys Pro Gly Gly Thr Ile Ser
63             100             105             110
64 Asn Ile Phe Thr Phe Trp Val Asp Gly Asp Met Asp Leu Ser Ile Ser
65         115             120             125
66 Met Thr Thr Cys Ser Thr Val Ala Ala Leu Gly Met Met Pro Leu Cys
67     130             135             140
68 Ile Tyr Leu Tyr Thr Trp Ser Trp Ser Leu Gln Gln Asn Leu Thr Ile
69 145             150             155             160
70 Pro Tyr Gln Asn Ile Gly Ile Thr Leu Val Cys Leu Thr Ile Pro Val
71             165             170             175
72 Ala Phe Gly Val Tyr Val Asn Tyr Arg Trp Pro Lys Gln Ser Lys Ile
73             180             185             190
74 Ile Leu Lys Ile Gly Ala Val Val Gly Gly Val Leu Leu Leu Val Val
75         195             200             205
76 Ala Val Ala Gly Val Val Leu Ala Lys Gly Ser Trp Asn Ser Asp Ile
77     210             215             220
78 Thr Leu Leu Thr Ile Ser Phe Ile Phe Pro Leu Ile Gly His Val Thr
79 225             230             235             240
80 Gly Phe Leu Leu Ala Leu Phe Thr His Gln Ser Trp Gln Arg Cys Arg
81             245             250             255
82 Thr Ile Ser Leu Glu Thr Gly Ala Gln Asn Ile Gln Met Cys Ile Thr
83             260             265             270
84 Met Leu Gln Leu Ser Phe Thr Ala Glu His Leu Val Gln Met Leu Ser
85         275             280             285
86 Phe Pro Leu Ala Tyr Gly Leu Phe Gln Leu Ile Asp Gly Phe Leu Ile
87     290             295             300
88 Val Ala Ala Tyr Gln Thr Tyr Lys Arg Arg Leu Lys Asn Lys His Gly
89 305             310             315             320
90 Lys Lys Asn Ser Gly Cys Thr Glu Val Cys His Thr Arg Lys Ser Thr
91             325             330             335
92 Ser Ser Arg Glu Thr Asn Ala Phe Leu Glu Val Asn Glu Glu Gly Ala
93         340             345             350
94 Ile Thr Pro Gly Pro Pro Gly Pro Met Asp Cys His Arg Ala Leu Glu
95     355             360             365
96 Pro Val Gly His Ile Thr Ser Cys Glu
97     370             375
99 <210> SEQ ID NO: 2
100 <211> LENGTH: 1131
101 <212> TYPE: DNA
102 <213> ORGANISM: Human
104 <400> SEQUENCE: 2
105 atgagagcca attgttccag cagctcagcc tgccctgcca acagttcaga ggaggagctg    60
106 ccagtgggac tggaggtgca tggaaacctg gagctcgttt tcacagtggt gtccactgtg   120
107 atgatggggc tgctcatgtt ctctttggga tgttccgtgg agatccggaa gctgtggtcg   180
108 cacatcagga gaccctgggg cattgctgtg ggactgctct gccagtttgg gctcatgcct   240
109 tttacagctt atctcctggc cattagcttt tctctgaagc cagtccaagc tattgctgtt   300
110 ctcatcatgg gctgctgccc ggggggcacc atctctaaca ttttcacctt ctgggttgat   360
111 ggagatatgg atctcagcat cagtatgaca acctgttcca ccgtggccgc cctgggaatg   420
```

RAW SEQUENCE LISTING   DATE: 06/29/2006
PATENT APPLICATION: US/10/501,566B   TIME: 15:03:40

Input Set : **A:\3015USOP.SEQ.txt**
Output Set: **N:\CRF4\06292006\J501566B.raw**

```
112 atgccactct gcatttatct ctacacctgg tcctggagtc ttcagcagaa tctcaccatt    480
113 ccttatcaga acataggaat tacccttgtg tgcctgacca ttcctgtggc ctttggtgtc    540
114 tatgtgaatt acagatggcc aaaacaatcc aaaatcattc tcaagattgg ggccgttgtt    600
115 ggtggggtcc tccttctggt ggtcgcagtt gctggtgtgg tcctggcgaa aggatcttgg    660
116 aattcagaca tcacccttct gaccatcagt ttcatctttc ctttgattgg ccatgtcacg    720
117 ggttttctgc tggcactttt tacccaccag tcttggcaaa ggtgcaggac aatttcctta    780
118 gaaactggag ctcagaatat tcagatgtgc atcaccatgc tccagttatc tttcactgct    840
119 gagcacttgg tccagatgtt gagtttccca ctggcctatg gactcttcca gctgatagat    900
120 ggatttctta ttgttgcagc atatcagacg tacaagagga gattgaagaa caaacatgga    960
121 aaaaagaact caggttgcac agaagtctgc catacgagga aatcgacttc ttccagagag   1020
122 accaatgcct tcttggaggt gaatgaagaa ggtgccatca ctcctgggcc accagggcca   1080
123 atggattgcc acagggctct cgagccagtt ggccacatca cttcatgtga a            1131
125 <210> SEQ ID NO: 3
126 <211> LENGTH: 24
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: Primer
133 <400> SEQUENCE: 3
134 aatgctgcct taaggagatg agga                                            24
136 <210> SEQ ID NO: 4
137 <211> LENGTH: 24
138 <212> TYPE: DNA
139 <213> ORGANISM: Artificial Sequence
141 <220> FEATURE:
142 <223> OTHER INFORMATION: Primer
144 <400> SEQUENCE: 4
145 cactggccct accaacaaga ttca                                            24
147 <210> SEQ ID NO: 5
148 <211> LENGTH: 24
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: Primer
155 <400> SEQUENCE: 5
156 atgagagcca attgttccag cagc                                            24
158 <210> SEQ ID NO: 6
159 <211> LENGTH: 24
160 <212> TYPE: DNA
161 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: Primer
166 <400> SEQUENCE: 6
167 ccagccagct agtccctgct attc                                            24
169 <210> SEQ ID NO: 7
170 <211> LENGTH: 18
171 <212> TYPE: DNA
172 <213> ORGANISM: Artificial Sequence
174 <220> FEATURE:
```

RAW SEQUENCE LISTING   DATE: 06/29/2006
PATENT APPLICATION: US/10/501,566B   TIME: 15:03:40

Input Set : A:\3015US0P.SEQ.txt
Output Set: N:\CRF4\06292006\J501566B.raw

```
175 <223> OTHER INFORMATION: Primer
177 <400> SEQUENCE: 7
178 atttaggtga cactatag                                                18
180 <210> SEQ ID NO: 8
181 <211> LENGTH: 19
182 <212> TYPE: DNA
183 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
186 <223> OTHER INFORMATION: Primer
188 <400> SEQUENCE: 8
189 aatacgactc actataggg                                               19
191 <210> SEQ ID NO: 9
192 <211> LENGTH: 24
193 <212> TYPE: DNA
194 <213> ORGANISM: Artificial Sequence
196 <220> FEATURE:
197 <223> OTHER INFORMATION: Primer
199 <400> SEQUENCE: 9
200 ttcgccagga ccacaccagc aact                                         24
202 <210> SEQ ID NO: 10
203 <211> LENGTH: 24
204 <212> TYPE: DNA
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Primer
210 <400> SEQUENCE: 10
211 agttgctggt gtggtcctgg cgaa                                         24
213 <210> SEQ ID NO: 11
214 <211> LENGTH: 1152
215 <212> TYPE: DNA
216 <213> ORGANISM: Human
218 <400> SEQUENCE: 11
219 atgagagcca attgttccag cagctcagcc tgccctgcca acagttcaga ggaggagctg    60
220 ccagtgggac tggaggtgca tggaaacctg gagctcgttt tcacagtggt gtccactgtg   120
221 atgatggggc tgctcatgtt ctctttggga tgttccgtgg agatccggaa gctgtggtcg   180
222 cacatcagga gaccctgggg cattgctgtg ggactgctct gccagtttgg gctcatgcct   240
223 tttacagctt atctcctggc cattagcttt tctctgaagc cagtccaagc tattgctgtt   300
224 ctcatcatgg gctgctgccc gggggggcacc atctctaaca ttttcacctt ctgggttgat   360
225 ggagatatgg atctcagcat cagtatgaca acctgttcca ccgtggccgc cctgggaatg   420
226 atgccactct gcatttatct ctacacctgg tcctggagtc ttcagcagaa tctcaccatt   480
227 ccttatcaga acataggaat tacccttgtg tgcctgacca ttcctgtggc ctttggtgtc   540
228 tatgtgaatt acagatggcc aaaacaatcc aaaatcattc tcaagattgg ggccgttgtt   600
229 ggtggggtcc tccttctggt ggtcgcagtt gctggtgtgg tcctggcgaa aggatcttgg   660
230 aattcagaca tcaccccttct gaccatcagt ttcatctttc ctttgattgg ccatgtcacg   720
231 ggttttctgc tggcactttt tacccaccag tcttggcaaa ggtgcaggac aatttcctta   780
232 gaaactggag ctcagaatat tcagatgtgc atcaccatgc tccagttatc tttcactgct   840
233 gagcacttgg tccagatgtt gagtttccca ctggcctatg gactcttcca gctgatagat   900
234 ggatttctta ttgttgcagc atatcagacg tacaagagga gattgaagaa caaacatgga   960
235 aaaaagaact caggttgcac agaagtctgc catacgagga aatcgacttc ttccagagag  1020
```

RAW SEQUENCE LISTING   DATE: 06/29/2006
PATENT APPLICATION: US/10/501,566B TIME: 15:03:40

Input Set : A:\3015USOP.SEQ.txt
Output Set: N:\CRF4\06292006\J501566B.raw

```
236 accaatgcct tcttggaggt gaatgaagaa ggtgccatca ctcctgggcc accagggcca   1080
237 atggattgcc acagggctct cgagccagtt ggccacatca cttcatgtga atagcaggga   1140
238 ctagctggct gg                                                        1152
240 <210> SEQ ID NO: 12
241 <211> LENGTH: 1152
242 <212> TYPE: DNA
243 <213> ORGANISM: Human
245 <400> SEQUENCE: 12
246 atgagagcca attgttccag cagctcagcc tgccctgcca acagttcaga ggaggagctg     60
247 ccagtgggac tggaggtgca tggaaacctg gagctcgttt tcacagtggt gtccactgtg    120
248 atgatggggc tgctcatgtt ctctttggga tgttccgtgg agatccggaa gctgtggtcg    180
249 cacatcagga gaccctgggg cattgctgtg ggactgctct gccagtttgg gctcatgcct    240
250 tttacagctt atctcctggc cattagcttt tctctgaagc cagtccaagc tattgctgtt    300
251 ctcatcatgg gctgctgccc gggggggcacc atctctaacg ttttcacctt ctgggttgat    360
252 ggagatatgg atctcagcat cagtatgaca acctgttcca ccgtggccgc cctgggaatg    420
253 atgccactct gcatttatct ctacacctgg tcctggagtc ttcagcagaa tctcaccatt    480
254 ccttatcaga acataggaat tacccttgtg tgcctgacca ttcctgtggc ctttggtgtc    540
255 tatgtgaatt acagatggcc aaaacaatcc aaaatcattc tcaagattgg ggccgttgtt    600
256 ggtggggtcc tccttctggt ggtcgcagtt gctggtgtgg tcctggcgaa aggatcttgg    660
257 aattcagaca tcacccttct gaccatcagt ttcatctttc ctttgattgg ccatgtcacg    720
258 ggttttctgc tggcactttt tacccaccag tcttggcaaa ggtgcaggac aatttcctta    780
259 gaaactggag ctcagaatat tcagatgtgc atcaccatgc tccagttatc tttcactgct    840
260 gagcacttgg tccagatgtt gagtttccca ctggcctatg gactcttcca gctgatagat    900
261 ggatttctta ttgttgcagc atatcagacg tacaagagga gattgaagaa caaacatgga    960
262 aaaaagaact caggttgcac agaagtctgc catacgagga aatcgacttc ttccagagag   1020
263 accaatgcct tcttggaggt gaatgaagaa ggtgccatca ctcctgggcc accagggcca   1080
264 atggattgcc acagggctct cgagccagtt ggccacatca cttcatgtga atagcaggga   1140
265 ctagctggct gg                                                        1152
267 <210> SEQ ID NO: 13
268 <211> LENGTH: 1131
269 <212> TYPE: DNA
270 <213> ORGANISM: Human
272 <400> SEQUENCE: 13
273 atgagagcca attgttccag cagctcagcc tgccctgcca acagttcaga ggaggagctg     60
274 ccagtgggac tggaggtgca tggaaacctg gagctcgttt tcacagtggt gtccactgtg    120
275 atgatggggc tgctcatgtt ctctttggga tgttccgtgg agatccggaa gctgtggtcg    180
276 cacatcagga gaccctgggg cattgctgtg ggactgctct gccagtttgg gctcatgcct    240
277 tttacagctt atctcctggc cattagcttt tctctgaagc cagtccaagc tattgctgtt    300
278 ctcatcatgg gctgctgccc gggggggcacc atctctaacg ttttcacctt ctgggttgat    360
279 ggagatatgg atctcagcat cagtatgaca acctgttcca ccgtggccgc cctgggaatg    420
280 atgccactct gcatttatct ctacacctgg tcctggagtc ttcagcagaa tctcaccatt    480
281 ccttatcaga acataggaat tacccttgtg tgcctgacca ttcctgtggc ctttggtgtc    540
282 tatgtgaatt acagatggcc aaaacaatcc aaaatcattc tcaagattgg ggccgttgtt    600
283 ggtggggtcc tccttctggt ggtcgcagtt gctggtgtgg tcctggcgaa aggatcttgg    660
284 aattcagaca tcacccttct gaccatcagt ttcatctttc ctttgattgg ccatgtcacg    720
285 ggttttctgc tggcactttt tacccaccag tcttggcaaa ggtgcaggac aatttcctta    780
286 gaaactggag ctcagaatat tcagatgtgc atcaccatgc tccagttatc tttcactgct    840
287 gagcacttgg tccagatgtt gagtttccca ctggcctatg gactcttcca gctgatagat    900
288 ggatttctta ttgttgcagc atatcagacg tacaagagga gattgaagaa caaacatgga    960
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 06/29/2006
PATENT APPLICATION: US/10/501,566B   TIME: 15:03:41

Input Set : A:\3015USOP.SEQ.txt
Output Set: N:\CRF4\06292006\J501566B.raw

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:116; N Pos. 811,812

VERIFICATION SUMMARY
PATENT APPLICATION: **US/10/501,566B**

DATE: 06/29/2006
TIME: 15:03:41

Input Set : **A:\3015USOP.SEQ.txt**
Output Set: **N:\CRF4\06292006\J501566B.raw**

L:2323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:116 after pos.:780